

ABSTRACT OF THE DISCLOSURE

A method and apparatus for accurately estimating the carrier frequency offset and the carrier phase offset of a digitally modulated signal using a signal processing algorithm to initialize the state variables of a Phase-Locked Loop (PLL) is disclosed. A sequence of phase values is estimated from a received sequence of symbols and the angular effect due to the modulation format is removed from the sequence of phase values. A curve-fit algorithm based in one embodiment on the RLS algorithm is then applied to a sequence of unwrapped phase values to estimate the carrier frequency offset and the carrier phase offset.